

# Quality of Service on Public Mass Transit in Jakarta

Tety Elida  
Gunadarma University  
tety@staff.gunadarma.ac.id

Didin Mukodim  
Gunadarma University  
didin@staff.gunadarma.ac.id

## Abstract

The traffic congestion in Jakarta remains unsolved despite the provision of public transportation, such as Trans Jakarta bus which is relatively comfortable. This study aims at measuring the service quality of Trans Jakarta bus based on its passengers' perception. Samples were taken from 400 respondents at 8 bus corridors. Data were collected through questionnaires and were analyzed with descriptive method. The study revealed that the availability of physical facilities and security became factors that should be emphasized.

Keywords :mass rapid transit, public transportation, quality service, TransJakarta

## 1 Introduction

Public transportation holds a very important role in urban society because it can carry numerous passengers with cheap fares. Public transportation planning becomes a prioritized aspect in developing economy in urban areas. [23].

The number of private vehicles which increases every year becomes one of many triggers of traffic congestion in Jakarta. Sufficient public transportation is consequently an urgent need. The provincial government of DKI Jakarta strives to solve the issue by developing bus rapid transit which is called Trans Jakarta. Yet, despite having implemented it for five years, traffic congestion remains prone. Private vehicle users refuse to switch utilizing it. This fact should be studied. Trans Jakarta service quality should be measured to correlatively figure out why only few of Jakarta residents switch to use this transportation.

Service quality is significantly strategic to maintain customers' satisfaction and increase income in every business organization ([5]; [2]). Service quality can be estimated through SERVQUAL model, it measures service quality by 5 dimensions consist of physical appearance, performance, reliability, empathy, and assurance [19]; [18]; [4]; [8]; [20]; [22].

The measurement of Trans Jakarta service quality can be achieved by studying passengers' perception towards waiting time, transit counter condition, punctuality, bus arrival frequency and terminal security [15] The study of public mass transit quality by [24] revealed that waiting time and vehicle capacity were two prominent characteristics that passengers concerned and sensitive with. The demographic condition also affects passengers' perception in evaluating the service quality of transportation, such as age, income, and ed-

ucation [14]. In addition, the educational background became an important variable that affected passengers' expectations and perceptions.

## 2 Method

The object of this study is the Trans Jakarta users in eight corridors. 400 respondents were randomly taken as samples. Data were collected through questionnaires. The study occupied tangibility, reliability, responsiveness, assurance and empathy as dimensions of service quality measurement. Each indicator is stated in 1-5 Likert scale. Service quality is analyzed with descriptive method based on score of passengers' perceptions towards Trans Jakarta service. Score 4 is determined as cut point which means that the perception of the indicator measured is considered sufficient. Tangibility is measured through 20 indicators, reliability is measured through 6 indicators, responsiveness is measured through 5 indicators, assurance and empathy is measured through 4 indicators each. Thus, service quality will be considered sufficient if each dimension receives score of 1600. Based on validity and reliability test of the questionnaires, it showed that the overall questions received correlation product moment score higher than 0.284 and  $\alpha$  Cormbrach value higher than 0.7, accordingly the indicators within the questionnaires were valid and reliable.

## 3 Result and Discussion

Based on gender, it showed that 55% of Trans Jakarta users were female. The majority of them (60%) were 26-45 years old with diploma or university educational background (64%). The users

were mostly active workers, and almost 60% of them lived in neighboring areas such as Depok, Tangerang and Bekasi. The tabulation result of Trans Jakarta bus users towards physical appearance, reliability, responsiveness, empathy and assurance can be seen in Table 1.

Trans Jakarta management should emphasize on the cleanliness of the shelter floor and wall as it received low scores in the dimension of physical appearance. [7], [3], stated that cleanliness is a factor that affects one's satisfaction towards public transportation. Cleanliness correlates with the habit of throwing rubbish to its bin, which is still neglected; so is the awareness of wall scratching prohibition. Thus, officers should appeal passengers that throw rubbish carelessly. Moreover, Trans Jakarta should ensure sufficient availability of rubbish bins in several places so that passengers do not need to walk far just to throw rubbish. The condition of physical facilities is an important factor that determines service quality, as stated by [17] and [9]).

The majority of Trans Jakarta passengers are workers coming from neighboring areas, such as Depok, Tangerang and Bekasi. They commonly use cars or motorcycles to reach the nearest Trans Jakarta shelter. Accordingly, the provision of sufficient parking lot should be ensured. Meanwhile, the current parking space is considered insufficient. Trans Jakarta management should evaluate this issue as the quality of public transportation service is also affected by the availability of space for transit [15].

In addition, the capacity of passengers within each bus has next become urgent to be concerned. During crowded time, bus arrival frequency should be increased to solve overloading passengers and waiting queue in each shelter. Solution to this problem has actually been applied in certain corridors, for instance through operating bus in 2 series.

Several studies showed that reliability has been prominent in determining service quality [7]; [3]; [16]; [21]; [9]). Most of Trans Jakarta users considered Trans Jakarta reliability as good, such as in terms of punctuality of bus departure, bus arrival, and ticket counter opening and closing time.

In the dimension of responsiveness, management should evaluate the ease of information access about Trans Jakarta schedule and route. Information remains lack if depending only in attaching it on every shelter wall and bus, it will be helpful if information can also be accessed through web service. Furthermore, considering that Trans Jakarta passengers consist of various cycles of society, the provision of information media, such as fliers/ brochures should also be considered. In general, passengers' perception towards this dimension is quite satisfactory.

Passengers' security while waiting in the shelter and inside the bus should be maintained. Mor-

foulaki, Trynopoulos & Aidopoulou (2007), [11], stated that security is strategic in determining the quality of transportation service. Security should especially be emphasized when passengers are crowdedly queuing in front of shelter door and when they get in and get out of the bus. Passengers considered officers friendly in responding to problems they encountered either inside the bus or while queuing in the shelter.

In general, ticket counter officer, security guard, conductor, and bus driver are considered passenger-friendly. These should be consistently maintained due to good officers fairly contribute to the value of service quality [6]; Gray, 2002; [13]; [11]; [10]).

## 4 Conclusion and Suggestion

Evaluation of physical facilities should be sustained, because the quality of Trans Jakarta service is determined by internal factors, corporate policy [13] and corporate supervision system ([6]; Gray, 2002). The availability of physical facilities is then related to fund, which is subsidized by the government. The subsidiary amount is determined by government budget, which distribution has not been executed well yet. Thus, it needs management role to solve this matter.

Despite good perception on reliability of Trans Jakarta management, empowerment for field officers such as drivers, ticket counter officers, shelter security guards and conductors should continue as this dimension is considered the most determining factor for the quality of transportation service. This aims at ensuring passengers' security, which is considered not good enough.

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